Some undescribed subspecies of tanagers from South America

by Kenneth C. Parkes

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Dr. Robert W. Storer has been good enough to make available to me a copy of the preliminary draft of his manuscript covering the tanager subfamily Thraupinae for the Peters' Check-list. In rearranging the tanager specimens in Carnegie Museum to conform with Dr. Storer's classification, I found that in a number of instances the variation shown by our birds did not accord with that described in the current literature. In fairness to Dr. Storer, it should be pointed out that he attempted little or no revisionary work at infraspecific levels, relying heavily on the standard works of Zimmer, Hellmayr, Phelps, Meyer de Schauensee, and others. The publication deadline for the Peters' list has not permitted the amount of study obviously needed within this subfamily; in particular, many of Zimmer's conclusions, accepted by later authors, were based on inadequate material and must be re-evaluated. In a few instances, however, the specimens available to me, consisting of the holdings of Carnegie Museum and the American Museum of Natural History, sufficed to define hitherto unnamed subspecies. Three are described in the present paper. I am indebted to Dr. Dean Amadon for permission to utilize the facilities of the American Museum.

Euphonia xanthogaster cyanonota subsp. nov.

Type: Carnegie Museum no. 92549, adult ♂, collected at Arimã, Rio Purús, Brazil, 31st August, 1922, by S. M. Klages (collector's no. 30546).

Characters: Nearest *E. x. dilutior* (Zimmer) of north-eastern Amazonian Peru, but dorsum of male steel blue rather than strongly violaceous (this is *not* a function of relative wear). In *cyanonota* only the nape is violaceous, whereas in *dilutior* this colour extends all the way to the upper tail-coverts. The yellow of the cap and underparts is like that of *dilutior*, but the cap may be somewhat less extended posteriorly (this may be affected by preparation technique). There is no difference in size between the two subspecies (for measurements of *dilutior*, see Zimmer, 1943a). The female of *cyanonota* is unknown.

Range: Known from two western tributaries of the Amazon, the Rio Purús (Arimã) and the Rio Juruá (João Pessõa, Lago Grande), in Brazil.

Remarks: Hellmayr (1936) had almost no material of this species from western Amazonian Brazil, tentatively (and wrongly) identifying birds from this region as nominate *xanthogaster* (type locality "Brazil"=vicinity of Rio de Janeiro; see Gyldenstolpe, 1945: 302). Zimmer (1943a) had only a single female from the Rio Madeira, and did not discuss the populations of western Amazonian Brazil. Gyldenstolpe (1951: 296), unaware of the material in Carnegie Museum, listed "*Tanagra xanthogaster dilutior* Zimmer" among the tanagers not yet recorded from the Rio Purús, but to be expected there. His prediction that the Purús population would be referable to *dilutior* was based on his earlier (1945) identification of four adult males from the upper Rio Juruá, a parallel tributary, as belonging to that race. He had not, however, seen any specimens of true *dilutior*, and based his identification on Zimmer's description. I had come to the same tentative conclusion with respect to the identification of the Rio Purús birds, until I was able to compare them

directly with Zimmer's series of *dilutior* in the American Museum of Natural History. Gyldenstolpe compared his specimens only with *xanthogaster* from Rio de Janeiro, but the wording of his description makes it highly probable that his specimens are, in fact, referable to *cyanonota*, as might be expected on geographic grounds.

The geographic variation in this species in the north-eastern part of its range is poorly understood. Gyldenstolpe (1945: 303) examined four adult males from the Potaro Highlands of British Guiana (now Guyana), and stated that previous authors were incorrect in assigning birds from this country to *E. x. brevirostris*. His comparative material of the latter was from eastern Ecuador. He had no material of *E. x. exsul*, the subspecies of the coastal ranges of Venezuela, but thought from written descriptions that his Potaro birds resembled *exsul*. However, he described the crown-patch of his specimens as between Mars Yellow and Raw Sienna of Ridgway (1912). In *exsul*, of which Carnegie Museum has an excellent series, the crown is much darker, being nearest Sanford's Brown of Ridgway. Zimmer (1943a: 5) pointed out that the type of *brevirostris* was a "Bogotá" trade skin, and that no Colombian specimens with authentic data have been found to match the dark colours of such "Bogotá" birds (the colour changes he postulated as a possible explanation are, in my opinion, highly improbable). I suspect that the name *brevirostris* will ultimately have to be confined to the eastern portion of the range as presently defined in the literature, from (probably) the eastern slope of the Eastern Andes of Colombia through southern Venezuela to Guyana. Another name will have to be found for the birds of the rest of Andean Colombia, Ecuador, and Peru, currently called *brevirostris* (thus including Gyldenstolpe's material). Bogotá itself is on the western slope of the Eastern Andes, but the yellow-capped birds from this slope in Carnegie Museum bear no resemblance to the description of *brevirostris* in Hellmayr (1936: 24) nor to "Bogotá" skins in New York. It is well known that such trade skins may have been obtained far from Bogotá, often on the opposite slope of the Andes.

Also puzzling are two males from Santarém, Brazil, in the Carnegie Museum collection, the only specimens I have seen from the lower Amazon. They are unlike any described subspecies in having both pure yellow underparts (very slightly deeper than in *dilutior* and *cyanonota*, but not washed with ochraceous) and a yellow-brown crown-patch. The feathers of the latter are actually brown at the tip, yellow in the middle, and dusky at the very base, with the overall visual effect being that of yellow-brown. Birds from this area would be expected to be referable to *xanthogaster* according to the range given by Hellmayr, but true *xanthogaster* is a much more richly coloured bird. More material is obviously needed before the geographic variation in this species can be understood.

Specimens examined: Direct comparisons were made between four specimens from Arimã, Rio Purús, the two Santarém specimens mentioned above, and the entire American Museum series listed by Zimmer (1943a: 8).

Euphonia chlorotica amazonica subsp. nov.

Type: Carnegie Museum no. 92885, adult ♀, collected at Arimã, Rio Purús, Brazil, 13th September, 1922, by S. M. Klages (collector's no. 30883).

Characters: Males like *E. c. taczanowskii* of Peru in colour, but wing shorter and bill shorter, narrower, and more slender; females are also smaller than *taczanowskii*, but are more greenish yellow on flanks, forehead, and lores, with

the yellow of the forehead much less sharply defined from the duller colour of the crown.

Measurements: Wing (flattened) ♂ *amazonica:* 52, 53, 53, 53.5, 54, 54, 54, 54, 55, 55.5. ♂ *taczanowskii* (Peru): 55 (worn), 55.5, 56.5, 56.5, 57, 58, 58, 58.5, 59, 59. ♀ *amazonica:* 50.5, 53, 53. ♀ *taczanowskii:* 53.5, 54, 56 mm.

The bills of these euphonias are so small that conventional measurements do not reflect adequately the differences in size and proportions that are immediately apparent to the eye.

Range: Amazonian Brazil (see below for localities).

Remarks: This population was included under *E. c. serrirostris* (part) and *E. c. chlorotica* (part) by Hellmayr (1936), who also commented that he knew of no definite record from the Rio Purús. Gyldenstolpe (1951) also failed to record this species from the Purús, merely listing it (like *E. xanthogaster*) among those likely to occur there. Seven specimens from Arimã in Carnegie Museum establish the presence of *E. chlorotica* in the Purús area. Zimmer (1943a) commented extensively on variability in this species, and finally extended the range of *taczanowskii* to include the birds of Amazonian Brazil. It is true that adult males of *amazonica* are not separable from *taczanowskii* on the basis of colour. The discrimination of *amazonica* helps to clear up some of the confusion in Zimmer's account; a large series from western Mato Grosso (Chapada, Descalvados, etc.) in the American Museum, tentatively assigned by Zimmer to *taczanowskii*, is actually intermediate between *amazonica* and *serrirostris*, as might be expected on geographic grounds.

Specimens examined: Localities from which *amazonica* specimens were seen are as follows (all in Brazil): Arimã, Rio Purús; Boca Lago, Teffé; Caxiricatuba, Rio Tapajoz; Santarém. Localities of specimens of other races in the American Museum collection are listed by Zimmer (1943a: 15).

Tangara ruficervix inca subsp. nov.

Type: American Museum of Natural History no. 169467, adult ♂, collected at Utcuyacu, Dept. Junin, Peru (alt. 4,800 feet), 12th December, 1919, by H. Watkins.

Remarks: The southern Peruvian population of *Tangara ruficervix* has been assigned by all authors to *T. r. fulvicervix* (Sclater and Salvin), described from Tilotilo, Yungas, Bolivia. Hellmayr (1936: 133) called attention to differences between a male from the Yungas of La Paz, Bolivia, and a series from Peru. He mentioned the "more intensely blue" colour and wider orange-rufous band on the "pileum" (actually occiput) of the Bolivian bird. Bond (1955) found the occipital band better developed in one Bolivian male than in one from Eneñas, Dept. Junin, Peru. Zimmer (1943b: 1), with a fine series of 21 Peruvian males before him, but no Bolivian birds, suggested that the width of the occipital band was too variable to be useful taxonomically, and I agree. However, a male from Cochabamba, Bolivia, in the Carnegie Museum collection, shows that Hellmayr was correct in stating that Bolivian and Peruvian birds differ in body colour. The Bolivian bird, true *fulvicervix*, is of a strikingly deeper, more purplish blue, and has the reddish buff of the lower flanks and under tail-coverts darker and richer than in Peruvian examples. The bill of the Bolivian male is shorter and narrower than that of any Peruvian specimen seen, but (as in the case of *Euphonia chlorotica* above), the difference is more striking to the eye than is suggested by the 1 or 2 mm. difference in measurements. The illustration of the female holotype accompanying the description of *fulvicervix* (Sclater and Salvin, 1876) does not appear very different from females of *inca*, but the colours of the plate are

probably not accurate, since the written description by Sclater (1886: 130) stresses the purplish tinge of the blue, which is not shown in the plate, and which is one of the chief characters separating true *fulvicervix* from *inca*. The "description" of *T. r. inca* is one of those inverted situations in which the better-known subspecies, common in collections, is the one that requires a name. True *fulvicervix* of Bolivia is known from very few specimens.

Range: Southern Peru; see Zimmer (1943b) for a list of the localities from which "*fulvicervix*" (=*inca*) has been recorded.

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A non-melanic variant Bullfinch

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The British Museum (Natural History) recently received, in a collection of mounted specimens of abnormally coloured birds assembled by the late A. H. Scott and presented by Mrs. Scott, a variant example of the Bullfinch, *Pyrrhula pyrrhula*, showing non-melanic schizochroism (Harrison 1963). In such a variant, melanin pigments are absent from the plumage but carotenoid and allied pigments remain. In this example, a male, the plumage is mostly white with three or four scattered grey feathers on the mantle and left wing-coverts, but the pink colour is still present on the breast and head. In addition to extending over the breast, throat, and ear-coverts, the pink colour also continues over the crown of the head on the area normally occupied by the black cap. The forehead appears to be white (the specimen is a little faded having been exhibited for a period in daylight). The small red mark on the inner tertial is present and there is a faint pink tinge to the lower mantle and wings. From the evidence of similar variants one may assume that the red pigment is present in these areas in the normal plumage also, but masked by the melanins, the small amounts on parts such as the wings being probably responsible for the slight purplish tint of the normal feathers. Related species in Asia lack the complete black cap and show a greater amount of visible areas of red or orange pigment on the head and it seems likely that species-specific plumage patterns have been evolved in this group by superimposition of eumelanin patterns on areas of plumage previously showing carotenoid colouring, a similar situation being apparent in the African weavers (Harrison 1965).